

people during the last 2½ years. The other sequences we will show are of our current views of roadsides, performance of breakaway light poles and bridge parapet designs.

Mr. CONSTANDY. You mentioned the film had been shown to 1,200,000 people. What kind of people were these, engineers or what?

Mr. LUNDSTROM. This film is often used, probably most frequently used by service clubs. It is also used frequently by high school groups, by even the Boy Scouts in their programs of safety. It is also frequently shown to highway officials, city officials, anyone who might find reference to this road film library.

Mr. CONSTANDY. Fine. Tell us a little bit more about what use is made of the proving ground?

Mr. LUNDSTROM. The proving ground is used by all of the divisions of our corporation. Mr. Stonex and I represent the engineering staff who operate the proving ground, but it is open for use by every one of our divisions.

The original purpose, obviously, was to have a private road system where testing would not be subject to the traffic encountered on normal public roads.

We have at our proving ground then a total employment of about 1,500 people.

Mr. CONSTANDY. When was this established?

Mr. LUNDSTROM. The proving ground was established in 1924.

Now, the proving ground is utilized very extensively by these operating divisions. We have accumulated 337 million test miles during our operations. The current daily mileage runs between 70,000 and 80,000 miles. This is done on a three-shift basis, typically 6 days per week.

Mr. CONSTANDY. So it is used in all types of weather, too?

Mr. LUNDSTROM. Day and night, year-round; the proving ground actually never closes.

We have typical maintenance equipment, obviously, so that if there be a heavy snowstorm, we would clear our roads as you would on the public highway to conduct the scheduled tests. Nonscheduled tests under adverse conditions would, of course, be run as weather conditions would require.

Mr. CONSTANDY. Yes. We want to make this point, the traffic which you have on your road system is fairly typical of the traffic and the traffic conditions you then find on public highways.

Mr. LUNDSTROM. Very much so. The purpose of the proving ground as far as automotive testing is concerned is to find the problems before the vehicles are released to the customer. So we must have operations on the proving ground that are typical of conditions throughout the country.

Mr. CONSTANDY. Fine. When did you take over the proving ground?

Mr. LUNDSTROM. I came to the proving ground myself in 1939, but I was advanced to director of the proving ground in 1956.

Mr. CONSTANDY. What problems did you have then?

Mr. LUNDSTROM. Well, gentlemen, the director of a proving ground or the manager of any plant in General Motors is responsible for the safety of the people under his jurisdiction. This is a cardinal rule in any of our industrial operations, and so it became my responsibility to have safety foremost in my mind and obviously then we had to be very careful about the safety of the operation on the road system.